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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,195	10/26/2001	Majid Syed	708034-605-005	9765
Blaney Harper Jones, Day, Reavis & Pogue 51 Louisiana Ave., NW Washington, DC 20001			EXAMINER NGUYEN, THUONG	
			ART UNIT 2455	PAPER NUMBER
			MAIL DATE 10/06/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/044,195

**Applicant(s)**

SYED, MAJID

**Examiner**

Thuong (Tina) T. Nguyen

**Art Unit**

2155

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. This action is response to application 10/044,195 filed on 8/28/08. Claims 37-39 were amended. Claims 1-39 represent system for arbitrator system and method for national and local content distribution.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(c) which forms the basis for all obviousness rejections set forth in this Office action:

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 5-11, 13-19, 23-29, 31-39 are rejected under 35 U.S.C. 103(c) as being unpatentable over Berstis, Patent No. 6,944,430 B2 and Voit et al., U.S. Patent No. 2002/0044567 A1 and further in view of Linden, Patent No. 2003/0009765 A1.

Berstis teaches the invention as claimed including method and apparatus for automotive radio time shifting personalized to multiple drivers (see abstract).

4. As to claim 1, Berstis teaches a system, comprising:  
an arbitrator, said arbitrator determining relative levels of data content based upon priority indicators, and service classes (col 17, lines 52 – col 18, lines 21; Berstis discloses that the system of determined the broadcasting level upon the important topic such as weather, forecast, certain news...) of data content received from a plurality of

content providers (figure 11, 12, 13A, 13B & 22; col 1, lines 45-55; col 17, lines 20-27 & 20-27 & 45 – col 18, lines 65; Berstis discloses that the system of determined the broadcasting level based upon the priority levels, classes and categories of the user setting);

a scheduler, said scheduler sequencing said data content for broadcast based on said arbitrator determinations of relative levels of data content (col 19, lines 5-50; Berstis discloses that the system of schedule the broadcasting events based on the priority level).

But Berstis failed to teach the claim limitation wherein an arbitrator, said arbitrator determining relative levels of data content based upon service categories; an in-band on-channel (IBOC) transmitter broadcasting said data content based upon said sequencing.

However, Voit teaches automatic programming of customer premises equipment for vertical services integration (see abstract). Voit teaches the limitation wherein an arbitrator, said arbitrator determining relative levels of data content based upon service categories (page 9, paragraph 103; page 10, paragraph 113; page 11, paragraph 115 and table 1).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Berstis in view of Voit so that the system would be able to prioritized data based on some level of quality of service (QoS). One would be motivated to do so to maximum grade of service offered to an individual subscriber depends on the rates for which the subscriber's line can qualify.

However, Linden teaches multiple program burst broadcast (see abstract). Linden teaches the limitation wherein an in-band on-channel (IBOC) transmitter broadcasting said data content based upon said sequencing (page 1, paragraph 6; page 9, paragraph 81).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Berstis in view of Linden so that the system would be able to support broadcasting IBOC. One would be motivated to do so to dynamically alters the bandwidth allocated to particular system channel.

5. As to claim 5, Berstis, Voit and Linden teach the system as recited in claim 1, wherein said data content is arbitrated based on a plurality of the following parameters: content type, transmission requirements, data type, time, end user device requirements (col 21, lines 40-60; Berstis discloses that the system of based on the data type and time).

6. As to claim 6, Berstis, Voit and Linden teach the system as recited in claim 1, wherein said data content is prioritized, based on said priority indicators, as one of the following: extreme high priority for immediate data transmission, high priority for transmission at earliest opportunity, normal according to requested repetition rate, and low for transmission in slots left free after transmission of messages of extreme high priority, high priority, and normal priority (figure 22).

7. As to claim 7, Berstis, Voit and Linden teach the system of as recited in claim 1. But Berstis and Linden failed to teach the limitation wherein said priority indicators

comprise one or more of the following fields: level of service, bit rate requirements, latency grades, or best effort required.

However, Voit teaches automatic programming of customer premises equipment for vertical services integration (abstract). Voit teaches the limitation wherein said priority indicators comprise one or more of the following fields: level of service, bit rate requirements, latency grades, or best effort required (page 11, paragraph 115, 117 and 118; Voit discloses that the system which cable of prioritize traffic base on the weighted fair queuing, priority queuing. It also performs base on measuring and monitoring the physical rate limitations).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Berstis and Linden in view of Voit so that the system could behave correctly base on the pre-set limitations. One would be motivated to do so to have a system which functions different fields such as level of service, bit rate requirement and latency grades.

8. As to claim 8, Berstis, Voit and Linden teach the system as recited in claim 1, wherein said arbitrator determinations are further based upon a service operator code identifying said data content provider (figure 13A).

9. As to claim 9, Berstis, Voit and Linden teach the system as recited in claim 1, wherein said arbitrator determinations are further based upon a destination address representing a broadcast, multicast, or unicast scenario (col 1, lines 45-55; Berstis discloses that the system of broadcasting method for the system).

10. As to claim 10, Berstis, Voit and Linden teach the system of as recited in claim 1. But Berstis and Linden failed to teach the limitation wherein said service classes comprise at least basic, preferred, or premium.

However, Voit teaches the limitation wherein said service classes comprise at least basic, preferred, or premium (page 11, paragraph 115; Voit discloses that the system with the algorithms selected to implement QoS and SLAs, lowest priority level).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Berstis and Linden in view of Voit so that the system could behave correctly base on the set limitation. One would be motivated to do so to improve the performance of the system by setting the prioritized for different service classes.

11. As to claim 11, Berstis, Voit and Linden teach the system as recited in claim 1, wherein said service categories comprise at least one, or a combination of: administrative, maintenance, advertisement, news, sports, weather, traffic, emergency alert, stocks, entertainment, travel entities, medical, multimedia, audio, logo, or text (col 17, lines 52 – col 18, lines 21; Berstis discloses that the system of including weather forecast, events, news to the broadcasting program).

12. As to claim 13, Berstis, Voit and Linden teach the system as recited in claim 1, wherein said arbitrator determinations are further based upon periodicity requirements (col 17, lines 53 – col 18, lines 22; Berstis discloses that the system of defined the periodicity requirement for each priority classes).

13. As to claim 14, Berstis, Voit and Linden teach the system as recited in claim 1, wherein said arbitrator determinations are further based upon validity determinations including periods of validity (col 18, lines 22-37; Berstis discloses that the system of validating the periods for each priority classes).

14. As to claim 15, Berstis, Voit and Linden teach the system as recited in claim 1, wherein said arbitrator determinations are further based upon time stamps of said data content (figure 22)

15. As to claim 16, Berstis, Voit and Linden teach the system as recited in claim 14, wherein said arbitrator determinations are further based upon periodicity requirements (figure 11).

16. As to claim 17, Berstis, Voit and Linden teach the system as recited in claim 1, wherein said arbitrator determinations are further based upon geographic classifications (figure 6).

17. As to claim 18, Berstis, Voit and Linden teach the system as recited in claim 1, wherein said scheduler processes data for controlling display of information at a receiver (figure 22).

18. As to claim 19, Berstis teaches a system, comprising:

an arbitrator, said arbitrator determining relative levels of data content based upon priority indicators, and service classes (col 17, lines 52 – col 18, lines 21; Berstis discloses that the system of determined the broadcasting level upon the important topic such as weather, forecast, certain news...) of data content received from the plurality of content providers (figure 11, 12, 13A, 13B & 22; col 1, lines 45-55; col 17, lines 20-27 &



20-27 & 45 – col 18, lines 65; Berstis discloses that the system of determined the broadcasting level based upon the priority levels, classes and categories of the user setting);

a scheduler, said scheduler sequencing said data content for broadcast based on said arbitrator determinations of relative levels of data content (col 19, lines 5-50; Berstis discloses that the system of schedule the broadcasting events based on the priority level).

But Berstis failed to teach the claim limitation wherein one or more gateways arbitrating; an arbitrator, said arbitrator determining relative levels of data content based upon service categories; an in-band on-channel (IBOC) transmitter broadcasting said data content based upon said sequencing.

However, Voit teaches the limitation wherein one or more gateways (figure 2) arbitrating; an arbitrator, said arbitrator determining relative levels of data content based upon service categories (page 9, paragraph 103; page 10, paragraph 113; page 11, paragraph 115 and table 1).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Berstis in view of Voit so that the system would be able to prioritized data based on some level of quality of service (QoS). One would be motivated to do so to maximum grade of service offered to an individual subscriber depends on the rates for which the subscriber's line can qualify.

However, Linden teaches the limitation wherein an in-band on-channel (IBOC) transmitter broadcasting said data content based upon said sequencing (page 1, paragraph 6; page 9, paragraph 81).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Berstis in view of Linden so that the system would be able to support broadcasting IBOC. One would be motivated to do so to dynamically alters the bandwidth allocated to particular system channel.

19. As to claim 23, Berstis, Voit and Linden teach the system as recited in claim 19, wherein said data content is arbitrated based on a plurality of the following parameters: content type, transmission requirements, data type, time, end user device requirements (col 6, lines 1-29; Berstis discloses that the system of based on the transmission requirement for the parameters).

20. As to claim 24, Berstis, Voit and Linden teach the system of as recited in claim 19, wherein said data content is prioritized, based on said priority indicators, as one of the following: extreme high priority for immediate data transmission, high priority for transmission at earliest opportunity, normal according to requested repetition rate, and low for transmission in slots left free after transmission of messages of extreme high priority, high priority, and normal priority (figure 22).

21. As to claim 25, Berstis, Voit and Linden teach the system of as recited in claim 19. But Berstis and Linden failed to teach the limitation wherein said priority indicators comprise one or more of the following fields: level of service, bit rate requirements, latency grades, or best effort required.

However, Voit teaches the limitation wherein said priority indicators comprise one or more of the following fields: level of service, bit rate requirements, latency grades, or best effort required (page 11, paragraph 115, 117 and 118; Voit discloses that the system which cable of prioritize traffic base on the weighted fair queuing, priority queuing. It also performs base on measuring and monitoring the physical rate limitations).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Berstis and Linden in view of Voit so that the system could behave correctly base on the pre-set limitations. One would be motivated to do so to have a system which functions different fields such as level of service, bit rate requirement and latency grades.

22. As to claim 26, Berstis, Voit and Linden teach the system as recited in claim 19, wherein said arbitrator determinations are further based upon a service operator code identifying said data content provider (col 11, lines 9-29; Berstis discloses that the system of depend on the various priorities to the modem frame data allocator for the signals).

23. As to claim 27, Berstis, Voit and Linden teach the system as recited in claim 19, wherein said arbitrator determinations are further based upon a destination address representing a broadcast, multicast, or unicast scenario (col 3, lines 15-43; Berstis discloses that the system of broadcasting method for the system).

24. As to claim 28, Berstis, Voit and Linden teach the system of as recited in claim 19. But Berstis and Linden failed to teach the limitation wherein said service classes comprise at least basic, preferred, or premium.

However, Voit teaches the limitation wherein said service classes comprise at least basic, preferred, or premium (page 11, paragraph 115; Voit discloses that the system with the algorithms selected to implement QoS and SLAs, lowest priority level).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Berstis and Linden in view of Voit so that the system could behave correctly base on the set limitation. One would be motivated to do so to improve the performance of the system by setting the prioritized for different service classes.

25. As to claim 29, Berstis, Voit and Linden teach the system as recited in claim 19, wherein said service categories comprise at least one, or a combination of: administrative, maintenance, advertisement, news, sports, weather, traffic, emergency alert, stocks, entertainment, travel entities, medical, multimedia, audio, logo, or text (col 17, lines 52 – col 18, lines 21; Berstis discloses that the system of including weather forecast, events, news to the broadcasting program).

26. As to claim 31, Berstis, Voit and Linden teach the system as recited in claim 19, wherein said arbitrator determinations are further based upon periodicity requirements (col 3, lines 44-66; Berstis discloses that the system of defined the periodicity requirement for each priority classes).

27. As to claim 32, Berstis, Voit and Linden teach the system as recited in claim 19, wherein said arbitrator determinations are further based upon validity determinations including periods of validity (col 10, lines 37-53; Berstis discloses that the system of validating the periods for each priority classes).

28. As to claim 33, Berstis, Voit and Linden teach the system as recited in claim 19, wherein said message protocol further includes time stamps of said specified data content (figure 14).

29. As to claim 34, Berstis, Voit and Linden teach the system as recited in claim 19, wherein said arbitrator determinations are further based upon periodicity requirements (col 11, lines 30-60; Berstis discloses that the system of determined the delay period for each priority classes).

30. As to claim 35, Berstis, Voit and Linden teach the system as recited in claim 19, wherein said arbitrator determinations are further based upon geographic classifications (figure 14).

31. As to claim 36, Berstis, Voit and Linden teach the system as recited in claim 19, wherein said scheduler processes data for controlling display of information at a receiver (col 11, lines 60 – col 12, lines 20; Berstis discloses that the system of displaying multiple messages assignments).

32. As to claim 37, Berstis teaches a method comprising:

determining relative levels of data content based upon priority indicators, and service classes (col 17, lines 52 – col 18, lines 21; Berstis discloses that the method of determined the broadcasting level upon the important topic such as weather, forecast,

certain news...) of said data content providers (figure 11, 12, 13A, 13B & 22; col 1, lines 45-55; col 17, lines 20-27 & 20-27 & 45 – col 18, lines 65; Berstis discloses that the method of determined the broadcasting level based upon the priority levels, classes and categories of the user setting);

sequencing said data content for broadcast based upon said determining of relative levels of data content (col 19, lines 5-50; Berstis discloses that the method of schedule the broadcasting events based on the priority level).

But Berstis failed to teach the claim limitation wherein determining relative levels of data content based upon service categories; communicating said data content to an in-band on-channel (IBOC) network for digital radio broad cast transmission in accordance with said sequencing.

However, Voit teaches the limitation wherein determining relative levels of data content based upon service categories (page 9, paragraph 103; page 10, paragraph 113; page 11, paragraph 115 and table 1).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Berstis in view of Voit so that the system would be able to prioritized data based on some level of quality of service (QoS). One would be motivated to do so to maximum grade of service offered to an individual subscriber depends on the rates for which the subscriber's line can qualify.

However, Linden teaches the limitation wherein communicating said data content to an in-band on-channel (IBOC) network for digital radio broad cast transmission in accordance with said sequencing (page 1, paragraph 6; page 9, paragraph 81).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Berstis in view of Linden so that the system would be able to support broadcasting IBOC. One would be motivated to do so to dynamically alters the bandwidth allocated to particular system channel.

33. As to claim 38, Berstis teaches a system, comprising:

a computer processing system (figure 1); and

determining relative levels of data content based upon priority indicators, and service classes (col 17, lines 52 – col 18, lines 21; Berstis discloses that the system of determined the broadcasting level upon the important topic such as weather, forecast, certain news...) of data content providers (figure 11, 12, 13A, 13B & 22; col 1, lines 45-55; col 17, lines 20-27 & 20-27 & 45 – col 18, lines 65; Berstis discloses that the system of determined the broadcasting level based upon the priority levels, classes and categories of the user setting);

sequencing said data content for broadcast based upon said determining of relative levels of data content (col 19, lines 5-50; Berstis discloses that the system of schedule the broadcasting events based on the priority level).

But Berstis failed to teach the claim limitation wherein determining relative levels of data content based upon service categories; communicating said data content to an in-band on-channel (IBOC) network for digital radio broad cast transmission in accordance with said sequencing.

However, Voit teaches the limitation wherein determining relative levels of data content based upon service categories (page 9, paragraph 103; page 10, paragraph 113; page 11, paragraph 115 and table 1).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Berstis in view of Voit so that the system would be able to prioritized data based on some level of quality of service (QoS). One would be motivated to do so to maximum grade of service offered to an individual subscriber depends on the rates for which the subscriber's line can qualify.

However, Linden teaches the limitation wherein communicating said data content to an in-band on-channel (IBOC) network for digital radio broad cast transmission in accordance with said sequencing (page 1, paragraph 6; page 9, paragraph 81).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Berstis in view of Linden so that the system would be able to support broadcasting IBOC. One would be motivated to do so to dynamically alters the bandwidth allocated to particular system channel.

34. As to claim 39, Berstis teaches a computer readable medium, comprising:

determining relative levels of data content based upon priority indicators, and service classes (col 17, lines 52 – col 18, lines 21; Berstis discloses that the computer readable medium of determined the broadcasting level upon the important topic such as weather, forecast, certain news...) of said data content providers (figure 11, 12, 13A, 13B & 22; col 1, lines 45-55; col 17, lines 20-27 & 20-27 & 45 – col 18, lines 65; Berstis



discloses that the computer readable medium of determined the broadcasting level based upon the priority levels, classes and categories of the user setting);

sequencing said data content for broadcasting based upon said determining of relative levels of data content (col 19, lines 5-50; Berstis discloses that the computer readable medium of schedule the broadcasting events based on the priority level).

But Berstis failed to teach the claim limitation wherein determining relative levels of data content based upon service categories; communicating said data content to an in-band-on-channel (IBOC) network for digital radio broad cast transmission in accordance with said sequencing.

However, Voit teaches the limitation wherein determining relative levels of data content based upon service categories (page 9, paragraph 103; page 10, paragraph 113; page 11, paragraph 115 and table 1).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Berstis in view of Voit so that the system would be able to prioritized data based on some level of quality of service (QoS). One would be motivated to do so to maximum grade of service offered to an individual subscriber depends on the rates for which the subscriber's line can qualify.

However, Linden teaches the limitation wherein communicating said data content to an in-band-on-channel (IBOC) network for digital radio broad cast transmission in accordance with said sequencing (page 1, paragraph 6; page 9, paragraph 81).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Berstis in view of Linden so that the system would be able to support

broadcasting IBOC. One would be motivated to do so to dynamically alters the bandwidth allocated to particular system channel.

35. Claim 2 is rejected under 35 U.S.C. 103(c) as being unpatentable over Berstis, Patent No. 6,944,430 B2 in view of Voit, Patent No. 2002/0044567 A1, and Linden, Patent No. 2003/0009765 A1, and further in view of Beyda et al., U.S. Patent No. 5,935,218.

Berstis teaches the invention as claimed including method and apparatus for automotive radio time shifting personalized to multiple drivers (see abstract).

36. As to claim 2, Berstis, Voit and Linden teach the system as recited in claim 1. But Berstis, Voit and Linden failed to teach the limitation wherein said system comprises a hierarchy of gateways, one or more first level gateways arbitrating and scheduling a first data content level and one or more second level gateways operatively connected to said first level gateway(s) and arbitrating and scheduling a second data content level.

However, Beyda teaches the invention substantially as claimed including method and apparatus for bus network prioritization using the broadcast of delay time to lower priority users from high priority users in a token or loop network (see abstract).

Beyda teaches the limitation wherein said system comprises a hierarchy of gateways, one or more first level gateways arbitrating and scheduling a first data content level and one or more second level gateways operatively connected to said first

level gateway(s) and arbitrating and scheduling a second data content level (see figure 2, member 100; col 3, lines 4-10; 13-18; 28-32; Beyda discloses that the system that perform tasks which can be priority into two set, high priority and low priority users. Beyda also discloses that they chart which show the sequence steps taken by high priority and low priority to utilize a computer network).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Berstis, Voit and Linden in view of Beyda so that the system could behave in hierarchy functionality. One would be motivated to do so have two set of gateway, which would operate separately to speed up the system.

37. Claim 3-4 & 21-22 is rejected under 35 U.S.C. 103(c) as being unpatentable over Berstis, Patent No. 6,944,430 B2, and in view of Linden, Patent No. 2003/0009765 A1, in view of Beyda et al., U.S. Patent No. 5,935,218 and further in view of Voit, Patent No. 2002/0044567 A1.

Berstis teaches the invention as claimed including method and apparatus for automotive radio time shifting personalized to multiple drivers (see abstract).

38. As to claim 3, Berstis, Linden and Beyda teach the system as recited in claim 2. But Berstis, Linden and Beyda failed to teach the limitation wherein said one or more first level gateways arbitrating and scheduling a first data content level comprise at least a central gateway receiving requests from the plurality of content providers.

However, Voit teaches the invention substantially as claimed including an automatic programming of customer premises equipment for vertical services integration (see abstract).

Voit teaches the limitation wherein said one or more first level gateways arbitrating and scheduling a first data content level comprise at least a central gateway receiving requests from the plurality of content providers (page 12, paragraph 125; page 15, table 2; Voit discloses that the system which content plurality national/international content provider).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Berstis, Linden and Beyda in view of Voit so that the system would behave as a hierarchy network, central gateway to level gateway. One would be motivated to do so to have a system function hierarchy but also can received request from all around the world.

39. As to claim 4, Berstis, Linden and Beyda teach the system of as recited in claim 2. But Berstis, Linden and Beyda failed to teach the limitation wherein said one or more second level gateways receive requests from a plurality of local content providers.

However, Voit teaches the limitation wherein said one or more second level gateways receive requests from a plurality of local content providers (page 12, paragraph 126; page 15, table 2; Voit discloses that the system for receiving and buffering ATM cells until it's recognized a complete frame for multiple content providers).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Berstis, Linden and Beyda in view of Voit so that the system could receive request from different places in the world. One would be motivated to do so to improve the functionality of the system.

40. As to claim 21, Berstis, Linden and Beyda teach the system of as recited in claim 20. But Berstis, Linden and Beyda failed to teach the limitation wherein said one or more first level gateways arbitrating and scheduling a first data content level comprise at least a central gateway receiving requests from a plurality of content providers.

However, Voit teaches the limitation wherein said one or more first level gateways arbitrating and scheduling a first data content level comprise at least a central gateway receiving requests from a plurality of content providers (page 12, paragraph 125; page 15, table 2; Voit discloses that the system which content plurality national/international content provider).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Berstis, Linden and Beyda in view of Voit so that the system would behave as a hierarchy network, central gateway to level gateway. One would be motivated to do so to have a system function hierarchy but also can received request from all around the world.

41. As to claim 22, Berstis, Linden and Beyda teach the system of as recited in claim 20. But Berstis, Linden and Beyda failed to teach the limitation wherein said one or more second level gateways receive requests from a plurality of local content providers.

However, Voit teaches the limitation wherein said one or more second level gateways receive requests from a plurality of local content providers (page 12, paragraph 126; page 15, table 2; Voit discloses that the system for receiving and buffering ATM cells until it's recognized a complete frame for multiple content providers).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Berstis in view of Voit so that the system could receive request from different places in the world. One would be motivated to do so to improve the functionality of the system.

42. Claim 20 is rejected under 35 U.S.C. 103(c) as being unpatentable over Berstis, Patent No. 6,721,337 B1 in view of Voit, Patent No. 2002/0044567 A1, and Linden, Patent No. 2003/0009765 A1, and further in view of Beyda, Patent No. 5,935,218.

Berstis teaches the invention as claimed including method and apparatus for automotive radio time shifting personalized to multiple drivers (see abstract).

43. As to claim 20, Berstis, Voit and Linden teach the system of as recited in claim 19. But Berstis, Voit and Linden failed to teach the limitation wherein said system comprises a hierarchy of gateways, one or more first level gateways arbitrating and scheduling a first data content level and one or more second level gateways operatively

connected to said first level gateway(s) and arbitrating and scheduling a second data content level.

However, Beyda teaches the invention substantially as claimed including method and apparatus for bus network prioritization using the broadcast of delay time to lower priority users from high priority users in a token or loop network (see abstract).

Beyda teaches the limitation wherein said system comprises a hierarchy of gateways, one or more first level gateways arbitrating and scheduling a first data content level and one or more second level gateways operatively connected to said first level gateway(s) and arbitrating and scheduling a second data content level (see figure 2, member 100; col 3, lines 4-10; 13-18; 28-32; Beyda discloses that the system that perform tasks which can be priority into two set, high priority and low priority users. Beyda also discloses that they chart which show the sequence steps taken by high priority and low priority to utilize a computer network).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Berstis, Voit and Linden and further in view of Beyda so that the system could behave in hierarchy functionality. One would be motivated to do so have two set of gateway, which would operate separately to speed up the system.

44. Claim 12 & 30 are rejected under 35 U.S.C. 103(c) as being unpatentable over Berstis, Patent No. 6,944,430 B2 in view of Voit, Patent No. 2002/0044567 A1, and

Linden, Patent No. 2003/0009765 A1, and further in view of Gross et al., U.S. Patent No. 6,782,510 B1.

Berstis teaches the invention as claimed including method and apparatus for automotive radio time shifting personalized to multiple drivers (see abstract).

45. As to claim 12, Berstis, Voit and Linden teach the system as recited in claim 1. But Berstis, Voit and Linden failed to teach the limitation wherein said arbitrator determinations are further based upon language filtration identifiers.

However, Gross teaches the invention substantially as claimed including word checking tool for controlling the language content in documents using dictionaries with modifiable status fields (see abstract).

Gross teaches the limitation wherein said arbitrator determinations are further based upon language filtration identifiers (col 7, lines 30-56; Gross discloses that the system for filtering the language identification base on the pre-determination set).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Berstis, Voit and Linden in view of Gross so that the system could identified the language. One would be motivated to do so to improve the system. One of the advantages is to identify the language.

46. As to claim 30, Berstis, Voit and Linden teach the system of as recited in claim 19. But Berstis, Voit and Linden failed to teach the limitation wherein said arbitrator determinations are further based upon language filtration identifiers.



However, Gross teaches the limitation wherein said arbitrator determinations are further based upon language filtration identifiers (col 7, lines 30-56; Gross discloses that the system for filtering the language identification base on the pre-determination set).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Berstis, Voit and Linden in view of Gross so that the system could identify the language. One would be motivated to do so to improve the system. One of the advantages is to identify the language.

### ***Response to Arguments***

Applicant's arguments filed 9/3/08 have been fully considered but they are not persuasive. In response to Applicant's argument, the Patent Office maintains the rejection. In the remarks, the applicant argues in substance that; A) Applicant argued that there is not reason to combine Berstis and Linden to disclose the claim limitation wherein "an in-band-on channel (IBOC) transmitter broadcasting said data content based upon said sequencing".

In response to A); Applicants argue that there is not reason to combine Berstis and Linden to disclose the claim limitation wherein "an in-band-on channel (IBOC) transmitter broadcasting said data content based upon said sequencing". In response to

applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In response to Applicant's argument, the Patent Office maintains the rejection because Linden the reason to combine Berstis and Linden to broaden the user not with only commercial FM stations capability for broadcasting information but also in clued the in-ban-on-channel (IBOC) (page 1, paragraph 6; page 9, paragraph 81; Linden discloses that the method of broadcasting on-demand service include the IBOC and hybrid IBOC system and identified the payload channels and tuning the appropriate IBOC channel). Therefore, Berstis and Linden meet the claim limitation.

#### **Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuong (Tina) Nguyen whose telephone number is 571-272-3864, and the fax number is 571-273-3864. The examiner can normally be reached on 8:00 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on 571-272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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